

WHAT IS CLAIMED IS:

1. A multi-display apparatus comprising:  
a screen;  
a plurality of projectors to project images on the screen; and  
a common mirror for reflecting projection light fluxes from the plurality of projectors toward the screen.
2. A multi-display apparatus according to claim 1, further comprising individual mirrors corresponding to the plurality of projectors respectively are provided between the common mirror and the plurality of projectors.
3. A multi-display apparatus according to claim 1, wherein each of the plurality of projectors comprises a mercury lamp as a light source, and the mercury lamp is disposed so that the angle between the optical axis of the mercury lamp and the horizontal is 30 degrees or less.
4. A multi-display apparatus comprising:  
a screen; and  
a plurality of projectors to project images on the screen, the plurality of projectors being arranged in at least two columns horizontally and at least two rows

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5. A multi-display apparatus comprising:  
a frame section having a screen; and  
a projector mounting section having a plurality of  
projectors for projecting images on the screen, wherein  
the apparatus has a structure which can divide into the  
frame section and the projector mounting section.

6. A multi-display apparatus comprising:

- a screen;
- a housing for covering the multi-display apparatus except for the screen;
- a plurality of projectors to project images on the screen; and
- an exhaust duct for discharging air heated by a light source to the outside of the apparatus, the exhaust duct extending from the plurality of projectors to the housing.

7. A multi-display apparatus according to claim 6,  
wherein the exhaust duct is covered with a heat insulating  
material.

8. A multi-display apparatus according to claim 6,

wherein the duct is provided with an exhaust fan.

9. A multi-display apparatus according to claim 8, wherein the exhaust fan is positioned so as to face outside of the multi-display apparatus.

10. A multi-display apparatus according to claim 8, wherein the exhaust fan is positioned within each of the projectors.

11. A multi-display apparatus comprising,  
a screen;  
a housing for covering the multi-display apparatus except for the screen;  
a plurality of projectors to project images on the screen; and  
an air intake duct for taking outside air into the plurality of projectors, the air intake duct extending from the plurality of projectors to the housing.

12. A multi-display apparatus comprising,  
a screen;  
a plurality of projectors to project images on the screen, the projectors being arranged in at least three columns horizontally and at least two rows vertically; and

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a plurality of mirrors positioned in a plurality of optical paths via which the plurality of projectors produce projections, wherein the number of the mirrors positioned in the paths for the projectors disposed on opposing sides is larger than the number of the mirrors positioned in the paths for the projectors disposed centrally.

13. A multi-display apparatus comprising,

a screen;

a plurality of projectors to project images on the screen; and

a plurality of mirrors positioned between the screen and the plurality of projectors for reflecting a projection image, wherein imaginary projector positions, before the mirrors deflect the optical paths, for at least two adjacent projectors are arranged so as to be partially overlapped with each other.

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